##### Curriculum Vitae- Dr. Ofir Benjamin

March 2018

**Personal Details:**

Name: Ofir Benjamin

Date of birth: 29.7.81

Country of birth: ISRAEL

Identity No.: 043361856

Nationality: Israeli, German

Family status: Single

Permanent Address: Irus 8, Metula

Phone numbers: 00-972-524733420

Laboratory: Food Sensory, Tel Hai College

E-mail address: ofirbe@telhai.ac.il

1. **Academic Education:**

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| --- | --- | --- | --- |
| From-To | Institute | Area of Specialty | Degree |
| 2001-04 | Technion University, Israel | Dept. Biotechnology & Food Engineering | BSc. (*Honours - cum laude*). |
| 2007-9 | Wageningen University, The Netherlands | Dept. Food Science  Dairy specialization | MSc |
| 2009-12 | Otago University, New Zealand. | Dept. Food Science  Sensory evaluation of food | PhD |
| 2011-12 | Fraunhofer IVV institute, Freising, Germany | Dept. Sensory evaluation of food | Part of PhD course |
| 2013-2015 | MIGAL, Galilee Technological Centre research institute, Kiryat Shmona, Israel | Food sensory, dairy science | Post-Doc |

**MSc Thesis**: Calorie reduction in milk products by chromatographic lactose removal

Wageningen University, the Netherlands

# Academic Advisor: Prof. van Hooijdonk and Hein van Valenberg

**Doctoral Dissertation**: Volatile compounds release from emulsion system under oral conditions

Otago University, New Zealand.

Academic Advisors: Dr. David Everett, Prof. Andrea Buettner , Dr. Jonathan Beauchamp and Pat Silcock

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| Academic position:  |  |  |  | | --- | --- | --- | | From-To | Institute | Title | | 2013-2014 | Tel-Hai College | Adjunct teacher | | 2014-today | Tel-Hai College | Lecturer | |  |

## 2a. Activities in Tel Hai

1. Member of entrepreneurship committee – Tel Hai College
2. Advisor for food research station at the Science Education Center for Youth

**2b. Courses taught in Tel Hai**

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| --- | --- | --- |
| From-To | Course | Students |
| 2013-today | 1. Sensory evaluation of food  2. Principles of food technology b  3. Seminar for food product development  4. Food sciences seminar | B.A. |
| 2014-today | 1. Dairy science | B.A. |

1. **Positions in non-academic & research Institutions**

2013-2015 - Researcher at MIGAL – Galilee Technological Centre research institute, Kiryat Shmona, Israel. Research field: Sensory evaluation of food, dairy science, postharvest fruits.

**4. Funded Research**

**a. Competitive funds**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| In collaboration with | Funding Agency | **Title** | From-To | **Amount** |
| Dr. Jean-Jacques Itzhak Martinez (PI), Dr. Doron Lavee, Dr. Adi Jonas, Dr. Roee Gutman (Tel Hai College, MIGAL). | Research Authority,  Tel Hai College/Migal | Honey bee pupae as a source for food for the future: scientific, economic and technological feasibility | 2014-15 | 30K NIS  (5K NIS) |
| Dr. Adin Shwaimer (Israel dairy board)  Prof. Jabob Vaya (MIGAL) | Israel dairy board | New analytical methods to define raw milk quality using electronic tongue and nose  **(PI)** | 2015-16 | 100K NIS |
| Prof. Jabob Vaya (MIGAL) | Health Ministry and Israel dairy board | Research Title: The influence of salt reduction and alternative replacements on the sensorial quality of dairy product model - the quark.  **(PI)** | 2015 | 150K NIS |
| Dr. Meir Shlissel (PI)  Prof. Josef Kanner | Research Authority  Tel Hai College | Quality improvement of red wine with monitored oxidation process | 2015-16 | 15K NIS  (2K NIS) |
| Dr. Arnon Dag, Prof. Zeev Schimolovitz and Dr. Michael Borisover (Volcani Institute)  Prof. Josef Kanner (Hebrew University)  Dr. Meir Shlissel (Tel Hai College) | Health Ministry and Israel dairy board | Novel analytical methods to define organoleptic quality standards and health security in Israeli food products: olive oil and wine (**PI)**. | 2016-18 | 450K NIS  (240K NIS) |
| Dr. Jean-Jacques Itzhak Martinez (PI), Dr. Doron Lavee, Dr. Adi Jonas, (Tel Hai College, MIGAL). | Agriculture Ministry | Protein replacement source and functional ingredients from edible insects | 2016-19 | 600K NIS  (150K NIS) |
| Dr. Selina C Wang (UCDAVIS), Dr. Arnon Dag (Volcani Institute) | BARD | Developing advanced chemical and computational methods for assessing organoleptic properties  of olive oil | 2016-19 | 1,150K NIS  (210K NIS) |
| Dr. Meir Schlissel (PI), Gabriel Leitner (Veterinary centre) | Israel dairy board | Organoleptic parameters for raw milk to distinguish level of somatic cell levels using e-tongue and e-nose | 2017-18 | 100 K NIS  (30K NIS) |
| Prof. Rafi Stern (Northern Agriculture research) | MIGAL | Apple waste powder as super food ingredient (**PI)** | 2017 | 50K NIS |
| Dr. Roee Gutman (MIGAL), Gabriel Leitner (Veterinary centre), Dr. Uzi Merin (Volcani Institute). | Health Ministry and Israel dairy board | Evaluation of health benefits and organoleptic quality of dairy products made from milk sorted out by near-IR sensor based on fatty acid composition (**PI)** | 2018-2019 | 170 K NIS  (135K NIS) |
| Dr. Loai Bashir (Tel Hai- PI), Prof Giora Rytbo (MIGAL) and Zvika Albert (Sanlakol) | Economy ministry – **Magneton grant** | Detection and development of functional and healthy ingredients from corn cob | 2018 | 1.3M NIS  (100K NIS) |

**b. Other funds**

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| --- | --- | --- | --- | --- |
| In collaboration with | Funding Agency | **Title** | From-To | **Amount** |
|  | ICA Israel , Charitable Foundation | Electronic tongue – new instrument for the sensory lab in Tel-Hai. | 2014-15 | 320K NIS |
| Dr. Ofer Danay (MIGAL) | ICA Israel , Charitable Foundation | Electronic nose – new instrument for MIGAL to perform sensory evaluation. | 2014-15 | 150K NIS |
| Educational Youth Centre | Israel Negev and Galilee Development ministry | Dairy educational pilot plant equipment | 2015 | 420K NIS |
| Educational Youth Centre | Ramat Hagolan dairy ltd. | Viscometer equipment | 2015 | 40K NIS |
| Dr. Adi Jonas (Tel Hai), Dr. Itsic Martinez (MIGAL) | ICA Israel , Charitable Foundation | Insects processing and composition equipment | 2016 | 160K NIS |
| Dr. Meir Schlissel (Tel Hai) | Tnuva ltd. | Product development collaboration between academy and industry | 2017 | 25K NIS |

* 1. **Supervising Undergraduate Students**

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| From- To | Name of Student | **Degree, Years Supervised** |
| 2015 | Florencia Rekower | Undergraduate final project – Food science |
| 2015 | Noam Nativ | Undergraduate final project – Biotechnology (agriculture) |
| 2015-16 | Matan Haber | Undergraduate final project – Food science |
| 2016-17 | Yuval Abu Lafia | Undergraduate final project – Food science |
| 2016-17 | Safi Khalila | Undergraduate final project – Food science |
| 2017-18 | Lauren Nakleh | Undergraduate final project – Food science |

* 1. **Supervising Graduate Students**

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| --- | --- | --- |
| From- To | Name of Student | **Degree, Years Supervised** |
| 2016-18 | Nitzan Givon | MSc, Biotechnology, 3 years educational and research program |
| 2016-18 | Kami Hason | MSc, Biotechnology, 2 years research program |
| 2016-18 | Matan Haber | MSc, Biotechnology, 2 years research program |
| 2018-20 | Shir Cohen | MSc, Biotechnology, 2 years research program |

**6. Scholarships and Prizes** (\*since the last promotion):**:**

1. 2002- 1st place for innovative research for Tnuva Israel dairy industry (part of BSc final thesis project), as well as receiving the highest overall project grade within the entire academic department
2. 2007-9  **Scholarship:** European Dairy Science Scholarship
3. 2009-12 **Scholarships:** University of Otago Postgraduate Scholarship. Riddet institute scholar.
4. 2011-12 **Scholarship**: DAAD German Academic Exchange
5. **List of Publications**
   1. **Articles** (\*since the last promotion ):
6. **Benjamin, O**., Leus, M., & Everett, D. W. (2011). Static headspace analysis of volatile compounds released from β-lactoglobulin-stabilized emulsions determined by the phase ratio variation method. *Food Research International, 44*(1), 417-424. IF 3.535, ranked 13/243 in Food science.
7. **Benjamin, O**., Leus, M., Silcock, P., and Everett, D.W. (2012).Multilayer emulsions as delivery systems for controlled release of volatile compounds using pH and salt triggers *Food Hydrocolloids, 27, 109-118.* IF 4.355, ranked 4/123 in Food science.
8. **Benjamin, O**., Lassé, M., Silcock, P., and Everett, D.W. (2012). Effect of pectin adsorption on the hydrophobic binding sites of β-lactoglobulin in solution and in emulsion systems. *International Dairy Journal special issue of NIZO 7th dairy conference*, 26,36-40. IF 2.297, ranked 25/123 in Food science.
9. **Benjamin, O**., Silcock, P.,Kieser, J.A., Waddell, J.N., Swain, M.V., and Everett, D.W. (2012) Model mouth design with artificial tongue to analyze release of volatile compounds under pressure patterns. *Innovative Food Science and Emerging Technologies*, 15, 96-103. IF 2.248, ranked 17/123 in Food science.
10. **Benjamin, O**., Silcock, P. and Everett, D.W. (2012) Tongue pressure and oral conditions affect volatile release from liquid systems in a model mouth**.** *Journal of Agriculture and Food Chemistry*, 60, 9918-9927.IF 3.107 ,ranked 15/123 in Food science and technology.
11. **Benjamin, O.,** Silcock, P., Beauchamp, J., Buettner A. and Everett D.W (2013) Volatile release and structural stability of β-lactoglobulin primary and multilayer emulsions under simulated oral conditions. *Food Chemistry*, 140(1-2):124-34. IF 3.259, ranked 12/123 in Food science.
12. **\*Benjamin, O.,** Silcock, P., Beauchamp, J., Buettner A. and Everett D.W. (2014) Emulsifying properties of legume proteins compared to β-lactoglobulin and Tween-20 and the volatile release from oil-in-water emulsions. *Journal of Food Science,* 79(10):2014-2022.IF 1.791, ranked 45/123 in Food science
13. \*Jones, A., **Benjamin, O.** Martinez, J.-J. I. (2014**)** Does a parasite change the nutritional value of an insect? Varroa mites on honey bees as a model. *Journal of Insects as Food and Feed.* 1(2): 141-147.
14. **\*Benjamin, O**. Gamrasni, D. (2015) Electronic tongue as an objective evaluation method for taste profile of pomegranate juice in comparison with sensory panel and chemical analysis. *Food Analytical Methods*. 8(10):1-10 IF 1.95
15. \*Kirshenbaum, L. M, **Benjamin**. **O,** Porat, R. (2015) "Sensory and nutritional qualities of pomegranate juices extracted from separated arils and pressed whole fruits". *Journal of the Science of Food and Agriculture*. 96(4): 1313-8. IF 1.879, ranked 41/123 in Food science
16. \*Carmi. I, **Benjamin. O**, (2016) " Reduction in sodium content of fresh, semi-hard Tzfat cheese using salt replacer mixtures: taste, texture and shelf-life evaluation". *International Journal of Dairy Technology*. 69: 1-11. IF 0.943, ranked 72/123 in Food science
17. \*Bruun Jensen. A., Evans. J., Jonas-Levi. A., **Benjamin. O.**, Martinez. I., Dahle B., Roos. N., Lecocq. A., & Foley K., (2016). "Standard methods for Apis mellifera brood as human food", *Journal of Apicultural Research.* IF 2.08*.*

# \* [Benjamin](http://www.sciencedirect.com/science/article/pii/S0268005X17304782?via%3Dihub#!) O., Davidovich-Pinhas [M.,](http://www.sciencedirect.com/science/article/pii/S0268005X17304782?via%3Dihub#!) Shpigelman [A., Rytwo](http://www.sciencedirect.com/science/article/pii/S0268005X17304782?via%3Dihub#!)[G.](http://www.sciencedirect.com/science/article/pii/S0268005X17304782?via%3Dihub" \l "!)(2017)."Utilization of polysaccharides to modify salt release and texture of a fresh semi hard model cheese", *Food Hydrocolloids.* 75:95-106*.* IF 4.7, ranked 3/123 in Food science.

1. **\*Benjamin O**., Gamrasni, D. (2017). "High homogenization pressure and thermal pasteurization influence on microbial, nutritional and sensorial quality of pomegranate juice"**.** *Journal of Food Science and Technology* **(**Submitted)
2. \*Mishyna M., Martinez I.,, ChenJ., **BenjaminO.**(2018). “Extraction, characterization and functional properties of soluble proteins from edible grasshopper (*Schistocerca gregaria*) and honey bee (*Apis mellifera***)”.** Food Research International (Accepted) IF 3.5, ranked 18/123 in Food science.
3. \*Haber. M., Mishyna M., Martinez I.,. **BenjaminO.** (2018). Edible honey bee (*Apis mellifera*) brood: Odour and nutritional characterization as a function of life stage and diet”. Food Chemistry (submitted).
4. \*Mishyna M., Martinez I., Davidovich-Pinhas [M.,](http://www.sciencedirect.com/science/article/pii/S0268005X17304782?via%3Dihub#!) ChenJ., **BenjaminO.** (2018)**.** Heat-induced aggregation and gelation of proteins from edible honey bee brood (Apis mellifera) as a function of temperature and pH. Food Hydrocolloids (submitted).
   1. **Chapters in books** (\*since the last promotion ):
5. **\*Benjamin** **O.** and C. Salles. "Models of the Oral Cavity for the Investigation of Olfaction"In: A. Buettner: Handbook of Odor*.* Springer publishing, 2016.pp 271-286.
6. **Presentations in conferences** (\*since the last promotion ):
7. Everett, D.W., Gallier, S. and **Benjamin, O** and Jiménez-Flores, R. 2010. Structure of the Milk Fat Globule Membrane Layer and the Implications for Volatile Flavour Release. *In*: Proceedings of the Korean Society of Food Science and Technology, 77th annual meeting, Incheon, South Korea.
8. **Benjamin, O.** 2010. Static headspace analysis of volatile compounds released from β-lactoglobulin-stabilized emulsions determined by the phase ratio variation method. *In*: Dairy and science technology conference, IDF World Dairy Summit, Auckland, New Zealand. (*Poster presentation*).
9. **Benjamin,O**. 2011. Multilayer emulsions as delivery systems for controlled release of volatile compounds using pH and salt triggers. In: 7th NIZO dairy conference: flavour and texture, Papendal, The Netherlands (*Oral presentation*).
10. **Benjamin,O.** 2011. Development of model mouth to investigate the dynamic release of volatile compounds under artificial tongue pressure. In: 2nd MS Food Day, Trieste, Italy (*Oral presentation*).
11. **Benjamin,O.** 2011. A model mouth design to study the release of volatile compounds during swallowing under the influence of tongue pressure**.** In: 2011 EFFoST Annual Meeting, Berlin, Germany (*Oral presentation*).
12. **Benjamin, O.** 2012. Flavour release from emulsions and beverages in the mouth. In: Annual NZIFST conference, Hamilton, New Zealand (Invited key note speaker).
13. **Benjamin, O.** 2012. Volatile release and structural stability of β-lactoglobulin primary and multilayer emulsions under simulated oral conditions. In: Dairy and science technology conference, IDF World Dairy Summit, Cape Town, South Africa (Poster presentation).
14. **\*Benjamin, O**. 2014.The relationship between liking ice-cream and sensorial preferences. In : 12th congress of nutrition week in Israel, Tel Aviv (Oral presentation
15. \*Jonas, A., **Benjamin, O**. & Martinez, J.-J. I. 2014. Insects to Feed the World. Comparison of honeybee pupae composition from health and parasitized brood by *Varroa*. Ede, The Netherlands, p 155. (*Poster presentation*).
16. **\*Benjamin, O**. 2014.Salt reduction in dairy products impact on sensorial quality assessed by electronic nose and tongue**.** In: Pleasure conference, La Rochelle, France (*Oral presentation*).
17. \*Martinez, J.-J. I., **Benjamin, O**. & Jonas-Levi, A. 2014. The Entomological Society of Israel. The 33th Meeting. The impact of Varroa mites (*Varroa destructor*) and age on honey bee pupae composition. Agricultural Research Organization (ARO), Volcani Center, p. 73.
18. \*Everett David W, Kathriarachchi Kalpana, Zheng Haotian, **Benjamin, O**. 2014. Why structure important for flavor development and release. Conference: 2nd Symposium on Microstructure of Dairy Products. Melbourne, Victoria,Australia.
19. \***Benjamin, O**. Gamrasni, D. 2015. Electronic tongue as an objective evaluation method for taste profile of pomegranate juice in comparison with sensory panel and chemical analysis. ISOEN 16th International Symposium on Olfaction and Electronic Noses, Dijon, France. (*Poster presentation*).
20. \***Benjamin, O.** 2015. Innovations in the sensory world – use of electronic tongue to define the taste profile of food products. 6th Israeli Food Innovation Forum. Tel Aviv.*(Oral presentation*)
21. \***Benjamin, O.** 2016. [The electronic tongue - advance instrument to taste food](http://bioforumconf.com/isranalytica-abs/outofhtml/isranalytica_2016/theelectronic_Ofir_Benjamin.html). The 19th Annual meeting, Isranalitica, Tel Aviv, Israel *(Oral presentation*)
22. \***Benjamin, O.** 2016. [Novel analytical methods to characterize food sensory – health relation.](http://bioforumconf.com/isranalytica-abs/outofhtml/isranalytica_2016/theelectronic_Ofir_Benjamin.html)  In: 14th congress of nutrition week in Israel, Tel Aviv, Israel. *(Oral presentation*)
23. \***Benjamin, O.** 2016. Sodium reduction in fresh cheese – using salt replacers and structural modifications**.** 4th International Conference on Food Oral Processing. Lausanne, Switzerland *(Oral and poster presentation*)
24. \***Benjamin, O.** 2016. Sodium reduction in fresh cheese – using salt replacers and structural modifications. Food summit congress, Dublin, Ireland (*Poster presentation)*
25. **\* Benjamin, O.** 2017. Electronic Nose and Tongue - Advance Analytical Tools in Research and Industrial Applications. Isranalitica, Tel Aviv, Israel *(Oral presentation*)
26. **\* Benjamin, O.** Gamrasni, D. 2017.Effect of high pressure homogenization on pomegranate juice nutritional and organoleptic quality compared to thermal pasteurization. In: 1st Innovation in Food Science and Technology. Erding, Germany *(Oral presentation*)
27. **\*Benjamin, O.** 2017. On the frontier of food sensory research using electronic tongue. Food Industry Forum. Zheijang Gongshang University, Hangzhou, China (Oral presentation).
28. Haver, M. Mishyna, M., **\*Benjamin, O.** 2017. Characterization of flavor profile and nutritional value for edible insect powder made of grasshopper *(Schistocerca gregaria)* and honey bee (*Apis Mellifera*). Edible insects seminar. Liege university, Belgium (Oral presentation).
29. Mishyna M., Haver M., Martinez I.,, ChenJ., \***Benjamin O.** 2018.Characterization and functional properties of soluble proteins from edible grasshopper (Schistocerca gregaria) and honey bee. Edible insect symposium. Wageningen, The Netherlands (*Oral Presentation*).

### \*Benjamin, O. Martinez, I. 2018. From rearing to edible insect powders - nutritional, sensorial and functional properties of honeybee brood and grasshopper. Beneficial Expressions of Insects Convention. Afula, Israel (*Oral presentation*).

1. **\***Mishyna M., Martinez I.,ChenJ., **BenjaminO.** 2018. Aggregation and gelation of proteins from honey bee brood (*Apis mellifera*) Food Industry Forum. Zheijang Gongshang University, Hangzhou, China (Poster presentation).
2. **Conference Organization:**

2013-today: Member in the organizing committee of the innovation week conference on "The new food", Tel Hai Collage.

2014 –2018 The 1st until 5th "Innovation in Food Science" conference**,** Tel Hai College

1. **Referee for:**

Journal of Agriculture and Food Chemistry, Food Chemistry, Innovative Food Science and Emerging Technologies, Food Research International, International Dairy Journal.

Part of BARD panel judging research proposals

EFFoST Conference 2018